

Serial No. 10/698,217

Docket No. – BAT 0033 NA/40078.251/12755CON1

Amendments to the Claims

The following listing of claims will replace all prior versions, and listings, of claims in the present application:

1. (Previously Presented) A cellulosic fiber composite comprising:
a cellulosic material; and
a resin binder comprising vegetable protein hydrolysates and a synthetic resin, wherein
the synthetic resin is phenolic resin, isocyanate resin, or combinations thereof, and
the resin binder is present in an amount of less than 40% by weight of the composite.
2. (Original) The composite as claimed in claim 1 further comprising an average moisture content between about 8% and about 35% by weight.
3. (Original) The composite as claimed in claim 1 wherein the vegetable protein is soy protein.
4. (Original) The composite as claimed in claim 3 wherein the soy protein is soy isolate.
5. (Original) The composite as claimed in claim 3 wherein the soy protein is soy flour.
6. (Original) The composite as claimed in claim 3 wherein the soy protein is a blend of soy isolate and soy flour.
7. (Original) The composite as claimed in claim 6 wherein the weight ratio of the blend of soy isolate to soy flour is about 50 : 50.
8. (Original) The composite as claimed in claim 1 wherein the synthetic resin is phenolic resin.
9. (Original) The composite as claimed in claim 8 wherein the phenolic resin is phenol

Serial No. 10/698,217

Docket No. - BAT 0033 NA/40078.251/12755CON1

formaldehyde.

10. (Currently Amended) The composite as ~~claimed~~ claimed in claim 8 wherein the resin binder has a weight ratio of protein hydrolysates to phenolic resin between about 10 : 90 and about 90 : 10.
11. (Original) The composite as claimed in claim 8 wherein the resin binder has a weight ratio of protein hydrolysates to phenolic resin between about 10 : 90 and about 75 : 25.
12. (Original) The composite as claimed in claim 8 wherein the resin binder has a weight ratio of protein hydrolysates to phenolic resin between about 25 : 75 and about 75 : 25.
13. (Original) The composite as claimed in claim 8 wherein the resin binder has a weight ratio of protein hydrolysate to phenolic resin between about 25 : 75 and about 50 : 50.
14. (Currently Amended) The composite as ~~claimed~~ claimed in claim 1 wherein the synthetic resin further comprises paraformaldehyde.
15. (Currently Amended) The composite as ~~claimed~~ claimed in claim 14 wherein the weight ratio of the paraformaldehyde to the total of the protein hydrolysates and the synthetic resin is between about 2 : 48 and about 15 : 35 based on 50% resin solids.
16. (Currently Amended) The composite as ~~claimed~~ claimed in claim 1 wherein the synthetic resin further comprises high methylol content phenol formaldehyde pre-polymer.
17. (Original) The composite as ~~claimed~~ claimed in claim 16 wherein the molar ratio of formaldehyde to phenol to NaOH of the high methylol content phenol formaldehyde pre-polymer is about 2 : 1 : 0.5.
18. (Currently Amended) The composite as ~~claimed~~ claimed in claim 16 wherein the weight

Serial No. 10/698,217

Docket No. – BAT 0033 NA/40078.251/12755CON1

ratio of the high methylol content phenol formaldehyde pre-polymer to the total of the protein hydrolysates and the synthetic resin is between about 10 : 90 and about 90 : 10.

19. (Currently Amended) The composite ~~as claimed~~ as claimed in claim 16 wherein the weight ratio of the high methylol content phenol formaldehyde pre-polymer to the total of the protein hydrolysates and the synthetic resin is between about 25 : 75 and about 75 : 25.
20. (Original) The composite as claimed in claim 1 wherein the composite further comprises a silicone, silane, or combination thereof.
21. (Original) The composite as claimed in claim 20 wherein the silicone, silane, or combination thereof is applied as a coating to the composite.
22. (Currently Amended) The composite as ~~elaimed~~ claimed in claim 20 wherein the silicone, silane, or combination thereof is added to the resin binder.
23. (Currently Amended) The composite as ~~elaimed~~ claimed in claim 20 wherein the amount of silicone, silane, or combination thereof is between about 0.1% and about 1.0% based on the total amount of the cellulosic material.
24. (Previously Presented) A finished cellulosic fiber composite article prepared by the method comprising:
- mixing a protein hydrolysate with a synthetic resin, wherein the synthetic resin is phenolic resin, isocyanate resin, or combinations thereof, to produce a resin binder;
 - mixing an amount of resin binder with a cellulosic material to form a cellulosic material/resin binder blend, wherein the amount of resin binder is less than 40% by weight of the cellulosic material/resin binder blend;
 - felting the cellulosic material/resin binder blend to form a low moisture-content mat; and

Serial No. 10/698,217

Docket No. - BAT 0033 NA/40078.251/12755CON1

- d. molding the low moisture-content mat at an elevated temperature and pressure, producing the finished cellulosic fiber composite article.

25. (Original) The article as claimed in claim 24 that further comprises a laminate overlay.

26. (original) The composite as claimed in claim 1 wherein the synthetic resin is isocyanate resin.

27. (Original) The composite as claimed in claim 26 wherein the isocyanate resin is polymeric isocyanate.

28. (Currently Amended) The composite as ~~elaimed~~ claimed in claim 26 wherein the resin binder has a weight ratio of protein hydrolysates to isocyanate resin between about 10 : 90 and about 90 : 10.

29. (Currently Amended) The composite as ~~elaimed~~ claimed in claim 26 wherein the resin binder has a weight ratio of protein hydrolysates to isocyanate resin between about 10 : 90 and about 75 : 25.

30. (Currently Amended) The composite as ~~elaimed~~ claimed in claim 26 wherein the resin binder has a weight ratio of protein hydrolysates to isocyanate resin between about 25 : 75 and about 75 : 25.

31. (Original) The composite as claimed in claim 26 where in the resin binder has a weight ration of protein hydrolysates to isocyanate resin between about 25 : 75 and about 50 : 50.

32. (Currently Amended) The composite as ~~elaimed~~ claimed in claim 1 wherein the synthetic resin is a combination of phenolic resin and isocyanate resin.

Serial No. 10/698,217

Docket No. - BAT 0033 NA/40078.251/12755CON1

33. (Currently Amended) The composite as ~~elaimed~~ claimed in claim 32 wherein the weight ratio of the isocyanate resin to the total of the protein hydrolysates and the phenolic resin is between about 25 : 75 and about 75 : 25.

34. (Currently Amended) The composite as ~~elaimed~~ claimed in claim 26 wherein the amount of isocyanate resin making up the composite is about 1% to about 6% based on the total weight of the cellulosic material.

35. (Currently Amended) The composite as ~~elaimed~~ claimed in claim 26 wherein the amount of isocyanate resin making up the composite is about 1% to about 3% based on the total weight of the cellulosic material.

36. (Currently Amended) The composite as ~~elaimed~~ claimed in claim 26 wherein the amount of isocyanate resin making up the composite is about 1% to about 2% based on the total weight of the cellulosic material.